

**AMENDMENTS TO THE CLAIMS**

**This listing of claims will replace all prior versions and listings of claims in the application:**

**LISTING OF CLAIMS:**

1. (currently amended): An optical fiber cable comprising:
  - a central reinforcing element (1);
  - a layer of optical fibers (4) surrounding the central reinforcing element (1);
  - a buffer layer (5) surrounding the layer of optical fibers (4); and
  - an outer sheath (7) surrounding the buffer layer (5);wherein the layer of optical fibers is a single layer of bare optical fibers (4) surrounding the central reinforcing element (1);
  - wherein the buffer layer (5) fills at least part of interstices between the single layer of optical fibers (4) and the outer sheath (7) and at least part of interstices between the bare optical fibers surrounding the central reinforcement element (1) such that the bare optical fibers are pressed into contact against the central reinforcing element (1) and mechanically coupled to the central reinforcing element (1); and
  - wherein the majority of the volume of the buffer layer (5) is constituted by a material that is both solid and flexible;
  - wherein the central reinforcing element (1) comprises a central core (2) surrounded by an outer sheathing (3), the outer sheathing (3) is mechanically coupled to the

central core (2) by contact with the central core (2), the modulus of elasticity of the outer sheathing (3) being less than the modulus of elasticity of the central core (2); and  
wherein the layer of optically fibers (4) is mechanically coupled to the central reinforcing element (1) such that the optical fibers (4) are at least partially impressed in the outer sheathing (3).

2. (currently amended): An optical fiber cable comprising:
  - a central reinforcing element (1);
  - a layer of optical fibers (4) surrounding the central reinforcing element (1);
  - a buffer layer (5) surrounding the layer of optical fibers (4); and
  - an outer sheath (7) surrounding the buffer layer (5);wherein the layer of optical fibers is a single layer of bare optical fibers (4) surrounding the central reinforcing element (1);
  - wherein the buffer layer (5) fills at least part of interstices between the single layer of optical fibers (4) and the outer sheath (7) and at least part of interstices between the bare optical fibers surrounding the central reinforcing element (1) such that the bare optical fibers are pressed against the central reinforcing element (1) and mechanically coupled to the central reinforcing element (1) by contact between the bare optical fibers (4) and the central reinforcing element (1), said mechanical coupling reducing relative longitudinal movements between the optical fibers (4) and the central reinforcing element (1) during temperature variations of the cable; and

wherein the portion of the buffer layer (5) in contact with the bare optical fibers (4) is constituted by a material that is both solid and flexible so as to withstand radial flattening without exerting damaging mechanical stress on said optical fibers (4);

wherein the central reinforcing element (1) comprises a central core (2) surrounded by an outer sheathing (3), the outer sheathing (3) is mechanically coupled to the central core (2) by contact with the central core (2), the modulus of elasticity of the outer sheathing (3) being less than the modulus of elasticity of the central core (2); and

wherein the layer of optically fibers (4) is mechanically coupled to the central reinforcing element (1) such that the optical fibers (4) are at least partially impressed in the outer sheathing (3).

Claims 3-15 (Canceled).

16. (currently amended): An optical fiber cable comprising:

a central reinforcing element (1);

a plurality of optical fibers (4) surrounding the central reinforcing element (1); and

a buffer layer surrounding the plurality of optical fibers;

wherein the layer of optical fibers is a single layer of bare optical fibers (4) surrounding the central reinforcing element (1); and

wherein the buffer layer (5) fills at least part of interstices between the bare optical fibers surrounding the central reinforcement element (1) such that the bare optical fibers are pressed in

contact against the central reinforcing element (1) and mechanically coupled to the reinforcing element (1);

wherein the central reinforcing element (1) comprises a central core (2) surrounded by an outer sheathing (3), the outer sheathing (3) is mechanically coupled to the central core (2) by contact with the central core (2), the modulus of elasticity of the outer sheathing (3) being less than the modulus of elasticity of the central core (2); and

wherein the layer of optically fibers (4) is mechanically coupled to the central reinforcing element (1) such that the optical fibers (4) are at least partially impressed in the outer sheathing (3).

Claims 17-32 (Canceled).

33. (previously presented): An optical fiber cable according to claim 1, characterized in that the buffer layer (5) is mechanically coupled to the optical fibers (4) that it surrounds.

34. (previously presented): An optical fiber cable according to claim 1, characterized in that the cable includes reinforcing and wrapping roving (6) disposed helically about the buffer layer (5) and in contact with the buffer layer (5).

35 (previously presented): An optical fiber cable according to claim 1, characterized in that the cable includes a separator tape (6) disposed helically around the buffer layer (5) and in contact with the buffer layer (5).

36. (previously presented): An optical fiber cable according to claim 1, characterized in that the solid and flexible material of the buffer layer (5) has a Young's modulus at 25°C which is less than 150 MPa.

37. (previously presented): An optical fiber cable according to claim 36, characterized in that the solid and flexible material of the buffer layer (5) has a Young's modulus at 25°C which is less than 100 MPa.

38. (currently amended): An optical fiber cable according to claim 36, characterized in that the solid and flexible material of the buffer layer (5) is a solid ~~(non-perforated)~~ and non-perforated elastic material.

39. (previously presented): An optical fiber cable according to claim 36, characterized in that the solid and flexible material of the buffer layer (5) is a foam.

40. (previously presented): An optical fiber cable according to claim 1, characterized in that the buffer layer (5) is constituted exclusively by a single material.

41. (previously presented): An optical fiber cable according to claim 1, characterized in that the radial thickness (ect) of the portion of the buffer layer (5) situated outside the circle (41) circumscribing the layer of optical fibers (4) is small enough for the buffer layer (5) to be easily tearable without a tool.

42. (previously presented): An optical fiber cable according to claim 41, characterized in that the radial thickness (ect) of the portion of the buffer layer (5) situated outside the circle (41) circumscribing the layer of optical fibers (4) lies in the range 0.1 mm to 0.5 mm.

43. (previously presented): An optical fiber cable according to claim 42, characterized in that the radial thickness (ect) of the portion of the buffer layer (5) situated outside the circle (41) circumscribing the layer of optical fibers (4) lies in the range 0.15 mm to 0.40 mm.

44. (previously presented): An optical fiber cable according to claim 41, characterized in that the radial thickness (ect) of the portion of the buffer layer (5) situated outside the circle (41) circumscribing the layer of optical fibers (4) is less than the diameter (dfo) of a bare optical fiber (4).

45. (previously presented): An optical fiber cable according to claim 1, characterized in that the layer of optical fibers (4) comprises both optical fibers and some filler elements.

46. (previously presented): An optical fiber cable according to claim 1, characterized in that the optical fibers (4) are disposed helically or in an SZ configuration about the central reinforcing element (1).

47. (canceled).

48. (currently amended): An optical fiber cable according to ~~claim 47~~claim 1, characterized in that the central core (2) has a modulus of elasticity that is high enough to withstand traction exerted on the cable, and in that the outer sheathing (3) has a modulus of elasticity that is small enough to absorb at least in part the radial mechanical stresses exerted by the central core (2) on the optical fibers (4).

49. (currently amended): An optical fiber cable according to ~~claim 47~~claim 1, characterized in that the ratio between the diameter (d) of the central core (2) and the thickness (es) of the outer sheathing (3) is high enough to ensure that the behavior of the central reinforcing element (1) in response to variations in the temperature of the cable is closer to that of the central core (2) than to that of the outer sheathing (3).

50. (currently amended): An optical fiber cable according to ~~claim 49~~claim 1, characterized in that the ratio between the diameter (d) of the central core (2) and the thickness (es) of the outer sheathing (3) is greater than 4.

51. (previously presented): An optical fiber cable according to claim 1, characterized in that the cable also comprises wrapping means (6) for reinforcing the force with which the bare optical fibers (4) are pressed against the central reinforcing element (1).

52. (previously presented): An optical fiber cable according to claim 1, characterized in that no liquid, viscous, or semi-liquid element is in contact with the optical fibers (4).

53. (previously presented): An optical fiber cable according to claim 52, characterized in that the cable does not include any liquid, viscous, or semi-liquid element.

54. (previously presented): An optical fiber cable according to claim 1, characterized in that a liquid separator is disposed at the interface between the bare optical fibers (4) and the central reinforcing element (1) in just sufficient quantity to prevent damage to the optical fibers (4) while they are being assembled around the central reinforcing element (1).



55. (previously presented): An optical fiber cable according to claim 1, characterized in that the cable is constituted, successively from the center towards the periphery, by: a central reinforcing element (1) comprising a central core (2) surrounded by outer sheathing (3); a layer of optical fibers (4); a buffer layer (5) of solid and flexible material optionally including reinforcing roving; optional wrapping roving (6) also capable of acting as reinforcement; and an outer sheath (7).

56. (previously presented): An optical fiber cable according to claim 1, characterized in that the cable is constituted successively from the center towards the periphery by: a central reinforcing element (1) comprising a central core (2) surrounded by outer sheathing (3); a layer of optical fibers (4); a buffer layer (5) constituted by a single solid and flexible material; and an outer sheath (7).

57. (previously presented): An optical fiber cable according to claim 1, characterized in that the cable is a distribution cable.

58. (previously presented): An optical fiber cable according to claim 1, characterized in that the cable is an access cable.

59. (previously presented): An optical fiber cable according to claim 2, characterized in that the buffer layer (5) is mechanically coupled to the optical fibers (4) that it surrounds.

60. (previously presented): An optical fiber cable according to claim 2, characterized in that the buffer layer (5) is constituted exclusively by a single material.

61. (previously presented): An optical fiber cable according to claim 2, characterized in that no liquid, viscous, or semi-liquid element is in contact with the optical fibers (4).

62. (previously presented): An optical fiber cable according to claim 16, characterized in that the central reinforcing element (1) comprises a central core (2) surrounded by outer sheathing (3), in that the outer sheathing (3) is mechanically coupled to the central core (2) by contact with the central core (2), and in that the modulus of elasticity of the outer sheathing (3) is less than the modulus of elasticity of the central core (2).

63. (previously presented): An optical fiber cable according to claim 16, characterized in that the central core (2) has a modulus of elasticity that is high enough to withstand traction exerted on the cable, and in that the outer sheathing (3) has a modulus of elasticity that is small enough to absorb at least in part the radial mechanical stresses exerted by the central core (2) on the optical fibers (4).

64. (previously presented): An optical fiber cable according to claim 16, characterized in that no liquid, viscous, or semi-liquid element is in contact with the optical fibers (4).

65. (previously presented): An optical fiber cable according to claim 16, characterized in that the cable is constituted, successively from the center towards the periphery, by: a central reinforcing element (1) comprising a central core (2) surrounded by outer sheathing (3); a layer of optical fibers (4); a buffer layer (5) of solid and flexible material optionally including reinforcing roving; optional wrapping roving (6) also capable of acting as reinforcement; and an outer sheath (7).

66. (previously presented): An optical fiber cable according to claim 16, characterized in that the cable is constituted successively from the center towards the periphery by: a central reinforcing element (1) comprising a central core (2) surrounded by outer sheathing (3); a layer of optical fibers (4); a buffer layer (5) constituted by a single solid and flexible material; and an outer sheath (7).

67. (previously presented): An optical fiber cable according to claim 16, characterized in that the cable includes no more than six optical fibers (4), and in that the outside diameter (D) of the cable is less than 2 mm.

68. (previously presented): An optical fiber cable according to claim 16, characterized in that the cable includes no more than twelve optical fibers (4), and in that the outside diameter (D) of the cable is less than 2.5 mm.

69. (previously presented): An optical fiber cable according to claim 16, characterized in that the cable includes no more than twenty-four optical fibers (4), and in that the outside diameter (D) of the cable is less than 3.5 mm.

70. (previously presented): An optical fiber cable according to claim 16, characterized in that the cable is a distribution cable.

71. (previously presented): An optical fiber cable according to claim 16, characterized in that the cable is an access cable.

72. (new): An optical fiber cable according to claim 1, wherein the optical fibers (4) are at least partially impressed in the outer sheathing (3) such that shallow recesses are formed in the outer sheathing (3) at zones of contact with the optical fibers (4).

73. (new): An optical fiber cable according to claim 1, wherein the ratio between the modulus of elasticity of the central core (2) and the modulus elasticity of the outer sheathing (3) is greater than 10.

74. (new): An optical fiber cable according to claim 2, wherein the optical fibers (4) are at least partially impressed in the outer sheathing (3) such that shallow recesses are formed in the outer sheathing (3) at zones of contact with the optical fibers (4).

75. (new): An optical fiber cable according to claim 2, wherein the ratio between the modulus of elasticity of the central core (2) and the modulus elasticity of the outer sheathing (3) is greater than 10.

76. (new): An optical fiber according to claim 2, characterized in that the ratio between the diameter (d) of the central core (2) and the thickness (es) of the outer sheathing (3) is greater than 4.

77. (new): An optical fiber cable according to claim 16, wherein the optical fibers (4) are at least partially impressed in the outer sheathing (3) such that shallow recesses are formed in the outer sheathing (3) at zones of contact with the optical fibers (4).

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78. (new): An optical fiber cable according to claim 16, wherein the ratio between the modulus of elasticity of the central core (2) and the modulus elasticity of the outer sheathing (3) is greater than 10.

79. (new): An optical fiber according to claim 16, characterized in that the ratio between the diameter (d) of the central core (2) and the thickness (es) of the outer sheathing (3) is greater than 4.